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To: Linda Meyer/R10/USEPA/US@EPA
cc:
Subject: Proposed Pond Closure for ponds 17, 18A & 18B at FMC/Astaris Site

11/16/01 03:59 PM

Linda:
The following are preliminary comments on the materials provided for public review regarding the subject project. Let me preface the following by mentioning that it is not my intention to cause difficulty or exclusion for the owner or any firms currently working with the owner. It is my intention to help the parties involved come to agreement on the best possible approach to solution of the problem. There was a significant amount of material to review, but I will try to keep my comments brief and to the point. They are as follows:

Pond 17
The current closure plan as I understand it is to 1) drain the water from the existing pond, 2) treat the water in the existing treatment plant, 3) place overburden on the remaining solids in the pond to exude and remove as much additional water as possible from the remaining solids and cause settlement of the solids and overburden and 4) cap the overburden and remaining solids in the pond with a 20 mil impermeable liner.

In order for this proposed plan of action to successfully eliminate risk to the public from materials in the pond it is necessary to agree with the following two assumptions:

1) The existing containment system is not leaking now and it never will leak. If it is leaking, placement of the overburden will drive more of the pond contents through the containment system into the underlying soil and could exacerbate the existing leakage problem.

2) The 20 mil cap will never leak, for any reason. If it does leak, water migrating through the remaining solids and impounding on the existing containment system will create a condition that will significantly increase the risk of transport of materials from the pond into the surrounding soils and groundwater.

Regarding Assertion 1)
Review of laboratory test results on water samples from the down gradient detection wells (wells 171, 172 & 180) showed elevated levels of arsenic, cadmium, chloride and other constituents currently in pond 17. One could naturally assume that contamination in the detection wells is an indicator that the pond liner may be leaking. The report suggests this assumption may not be correct because the elevated levels observed in the detection wells could be due to leakage from an old unlined pond (Pond 7E) that was previously decomissioned. On page 5-11, Vol 1 the report states that well 171 is hydraulically down gradient from the old 7E pond and overflow area. It would make sense that contamination in well 171 could come from an up gradient source. However, review of figure 2 in section 10 of the report shows well 171 up gradient of the 7E contamination area. This seriously reduces the probability that contamination in well 171 is from pond 7E and suggests that the contamination is more probably from pond 17...i.e., there is some credible possibility that the liner of pond 17 is leaking. Wells 172 & 180 are shown located in the contamination area from pond 7E. Therefore the source of contamination in wells 172 and 180 is uncertain. This makes detection wells 172 and 180 almost unusable because there is no way to determine the source of contamination observed in the wells. In short, you have a detection system that cannot detect with any degree of certainty.

Regarding Assertion 2)
Historically, It is reasonable to assume that most, if not all liners eventually leak. The 20 mil liner proposed is relatively thin. I submit for your consideration that there exists an almost certain probability that the liner will be punctured during placement or at some point in the future. Thereby creating, over time, a situation where contaminated water can collect above the existing pond bottom liner in the interstitial spaces between the remaining particles comprising the pond solids. It's not much of a stretch to assume that the existing containment system will fail at some point in the future (that is, if it isn't leaking already). The report does not and cannot indicate with certainty that pond 17 is not leaking.

The same comments and concerns apply to both ponds 18A and 18B only more because these ponds contain hazardous materials and higher concentrations.

Conclusion
Simply capping the ponds is certainly the least expensive option when considering short term costs. However, leaving the contaminated sludge in-place without treatment is a lot like playing Russian Roulette. Time is not our side in this situation because of the propensity for long term failure inherent in flexible liners. Flexible liners, especially 20 mil liners, were never intended to be permanent containment systems and yet that is exactly what is being suggested in this circumstance. The remaining contamination in the ponds is a loaded gun and will remain so until it is correctly processed and treated so as not to pose a threat to public health.

I submit for your consideration that there are existing, well proven and available technologies to stabilize the pond sludge so it will not pose a public threat in the future. The process typically involves pumping the sludge as a slurry to a pug mill where reagents are added to stabilize the soil and/or chemically alter the characteristics of the constituents to more benign and less mobile conditions. Operations such as this can typically process the sludge for between $40-50 per cubic yard. After processing, the sludge does not pose a long term threat to the public and long term monitoring is minimized. This not only helps protect the public, but also helps limit the long term liability and cost to the owner.

It should be understood at this juncture that any future contamination to fish, wildlife or water in the Portneuf River or American Falls Reservior from these ponds, which drain to these bodies of water, will result in damages to the owner many times the cost of correct remediation now. All parties will benefit if closure is executed responsibly. I can suggest a few reputable firms that specialize in this field. They can provide their own references and case histories.

Leaving the sludge in-place without treatment is akin to burying a steel tank full of gasoline. The containment may work quite well when it is originally installed, but once again... time is not on our side in this situation. Sooner or later, the containment system will fail and in this game of Russian Roulette the one that loaded the gun and pulled the trigger will not be the one that gets shot. It is irresponsible to leave the contaminant in-place without treatment. I urge a more proactive course be considered.

Kind Regards,
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